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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Number: 10/648,862
Application Filed: 08/26/03
Applicant(s): Yaroslav M. SHUBA
Appn. Title: VANE-TYPE PISTON, FOUR-CYCLE MULTI-CHAMBER ROTARY
INTERNAL COMBUSTION ENGINE
Examiner/GAU: Thai-Ba Trieu/3748

Kiev, 2005 Jan. 6, Thu.

Amendment A

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In response to the Office Action mailed 2004 Oct. 26, please amend the above application as follows:

Abstract

Change to:

– A rotary internal combustion engine has a hollow stator with inner surface formed by two concentric cylindrical surfaces, which fluently transit one into the other via ramp surfaces, and a cylindrical rotor, having the same radius as smaller concentric surface of the stator. The rotor has vanes that move radially within the rotor tightly contouring the inner surface of the stator during rotor rotation. The cavities within the stator where its inner radius equals that of the rotor constitute combustion chambers, which connect to the variable-volume working chambers formed by outer surface of the rotor, inner surface of the stator with bigger radius and the side of the vane via valve-controlled orifices ending in the areas of the stator ramp surfaces. During rotor rotation the vanes provide compression of fuel mixture into combustion chambers and accept the energy of expanding gasses following fuel mixture ignition in the combustion chamber.